

**RESPONSE TO COMMENTS
ISSUANCE OF NPDES PERMIT NO. NH0100013
BERLIN POLLUTION CONTROL FACILITY
BERLIN, NEW HAMPSHIRE**

The U.S. Environmental Protection Agency (EPA) and the New Hampshire Department of Environmental Services, Water Division (NHDES-WD) solicited public comments from July 24, 2008 through August 22, 2008, on the draft National Pollutant Discharge Elimination System (NPDES) permit to be issued to the City of Berlin, New Hampshire. This permit authorizes the discharge of treated effluent from the facility and occasional overflows from a combined sewer overflow to the Androscoggin River.

During the public comment period, the City of Berlin submitted comments on the draft permit. Following is a response to these comments, including identification and explanation of changes made to the draft permit.

These responses and associated comments complement the fact sheet and the draft permit. The fact sheet was prepared to support the draft permit. The "Response To Comments" is a response to each significant written comment received by EPA. The reader will need to be familiar with the draft permit and fact sheet, the applicable federal NPDES permit regulations, and the State of New Hampshire's surface water quality standards regulations and State Statutes to understand the responses and associated comments. The New Hampshire water quality standards establish designated uses for the State's waters and contain narrative and numeric criteria to protect such uses - see 50 RSA § 485-A:8 and the N.H. Code of Administrative Rules, Env-Ws 1700-1709 (December 1999).

The original comments form a part of the NPDES Permit file and are summarized and condensed in this document.

COMMENT NO 1: The City of Berlin mentions that the average daily flow to the Berlin Pollution Control Facility (BPCF) for the period January 2007 to December 2007 was 2.17 mgd or 82% of the plant's design flow (2.64 mgd). The City recently completed a draft preliminary design report to upgrade the BPCF and provide treatment for the anticipated flows and loads in 2028. This report was completed for numerous reasons including average daily flow now exceeding 80% of the BPCF design flow. The draft report was submitted to Steve Roberts, NHDES on June 13, 2008 and the City received comments from Sharon Nall, NHDES on July 15, 2008. The preliminary design report estimated future average daily flows to the BPCF could approach 3.00 mgd resulting from proposed development within the community including, but not limited to, the following: federal prison currently under construction, expansion of the existing state prison, residential and commercial growth associated with these prison facilities, and new industrial development replacing the lost tax base from the recent Fraser Pulp Mill closure.

The closure of the Fraser Pulp Mill with the shutdown of its associated wastewater treatment facility (Burgess WWTF) has greatly reduced the pollutants entering the Androscoggin River. However, in order to replace the lost tax base, the City is looking to economic development opportunities. These developments will result in increased flow to the BPCF over time.

However, the expected increase in effluent flow and pollutant loadings from these developments is far less than the flow and loadings from the former Burgess WWTF. As such, the City requests that the US EPA and NHDES allow the City to increase its permitted average daily flow and associated effluent BOD and TSS limits without requiring extensive water quality sampling, analysis and modeling.

RESPONSE NO. 1: EPA is issuing the final permit to the City of Berlin with the effluent limitations including those for BOD and TSS based on the BPCF's current design flow at 2.64 mgd. EPA is unable to consider the City's request without the necessary water-quality sampling, analysis and modeling for the following reasons. EPA understands there are potential new discharges to the Androscoggin River within the vicinity of Berlin under consideration that may need to be reviewed with Berlin's flow increase request. Any new or additional discharges need to be evaluated in terms of the existing water-quality conditions in the Androscoggin River absent the impact of the former Burgess WWTF discharge. The City of Berlin is encouraged to discuss its flow increase request with the NHDES-WD as early in the process as possible to insure the appropriate studies are performed and supporting data are collected. During the term of the final permit, the City may request a permit modification to consider an increase in the design flow and the BOD and TSS mass limits. This request will need to include new permit application forms, results of the antidegradation review requirements (see NH Water Quality Standards Env-Ws 1708), and supporting documentation from the NHDES-WD.

COMMENT NO 2: Because the pH of our receiving water, the Androscoggin River, is frequently below 6.5 S.U., our prior permit included a pH Range limit of 6.0 to 8.0 S.U. for the plant's discharge. In addition, the BPCF's effluent is diluted by the Androscoggin River by 293 times and as such this effluent will not significantly alter the naturally occurring receiving water pH. The draft permit proposes a pH Range limit at 6.5 to 8.0 S.U. For the same reasons as in the previous permit, the permittee requests that the pH Range for our discharge is 6.0 to 8.0 in the final permit. Please consider this the City's official written request to adjust the pH limit under the Special Conditions in Part I.I.

RESPONSE NO. 2: The City is correct regarding the pH Range limit of 6.0 to 8.0 S.U. in the existing permit that was issued on September 29, 2000. As mentioned in the fact sheet (see page 9), EPA approved a change in the lower pH limit from 6.5 S.U. to 6.0 S.U. on November 28, 2001. This pH adjustment was made possible with the pH adjustment conditions in the existing permit and because Berlin had satisfied those permit requirements. EPA's approval letter states that this pH change is effective until the expiration of the permit or until revoked by U.S. EPA or the NHDES due to changes in the receiving water or the effluent. This final 2008 permit supersedes the 2000 permit including the associated pH change approved in 2001.

Please note the final permit includes the special pH permit condition that allows a change in the pH range under specific requirements that includes an adequate pH demonstration study followed by approval of the study results by the NHDES. For a change in the pH range, the City will need to follow the pH Limit Adjustments conditions that are included in Part I.I Special Conditions.

COMMENT NO 3: The draft permit requires that four (4) consecutive WET tests be completed to provide evidence for a reduction in the frequency of WET testing. We believe that the last four consecutive WET test submitted provided adequate evidence that a reduction in the annual

frequency of WET testing from two to one is appropriate. As such, the City requests that only one WET test is required per annum.

RESPONSE NO. 3: The test results obtained from the four most recent Whole Effluent Toxicity (WET) test reports on file with EPA are summarized below. These WET test results are shown for the two test species Ceriodaphnia dubia and Pimephales promelas as the LC50 values (percent effluent). The corresponding LC50 effluent limit is ≥ 50 % (greater than or equal to 50 percent). The October 2006 test result, with the Ceriodaphnia dubia specie, is a LC50 value at 24.1% that is not in compliance with the permit limit at ≥ 50 %. Therefore, the requirements for a reduction in the frequency of WET testing are not satisfied and the WET test frequency in the final permit remains at two per year.

Test Date	Ceriodaphnia dubia, LC50 percent	Pimephales promelas, LC50 percent
July 2006	>100	>100
Oct. 2006	24.1	>100
July 2007	>100	>100
Nov. 2007	>100	>100

If the LC50 results for all the WET tests during 2008 are ≥ 50 % and all these WET tests are valid, the City should submit a written request for a reduction in the frequency of WET testing. Please submit this request to the following address.

Roger A. Janson, Chief
Municipal Permits Branch
U.S. Environmental Protection Agency
Region I, Office of Ecosystem Protection
One Congress Street, Suite 1100 (CMP)
Boston, Massachusetts 02114-2023

During the preparation of this response, EPA noticed a typographical error on page 12 of the fact sheet. The last two sentences on this page: “This draft permit continues the WET testing at twice per year. The 100% limit means that a sample of 100% effluent shall have no greater than a 50% mortality rate.” should be replaced with the following two sentences: This draft permit continues the WET testing at twice per year and the existing LC50 limit of ≥ 50 % effluent concentration. The 50 % limit means that a sample of 50 % effluent shall have no greater than a 50% mortality rate. The WET test language in the permit is not impacted and is not changed.

COMMENT NO 4: This year the BPCF’s Superintendent resigned and the current two individuals in charge of the plant have not experienced a complete maintenance cycle. The City respectfully requests that the draft permit requirement (Part I.D.5) to complete a Collection System O&M plan is extended from 6 months to twelve months.

RESPONSE NO. 4: EPA is unable to revise the standard permit language for the Collection System O&M plan that is applicable to the permits issued to all municipal facilities. EPA recommends that the City submit a written request to extend the submission date of the Collection System O&M plan following the effective date of the final permit. EPA will then be

able to provide Berlin with a response to an extension of the submission date in the final permit. This request should be sent to the address provided in Response No. 3. In the interim, the City can begin preparation of the O&M plan. Additionally, EPA is in the process of preparing a preventive maintenance template that will be available for Berlin's use to help in updating the current plan to meet the requirements of the permit. This template will be available in November 2008. If Berlin is interested in using this template, please contact Gina Snyder at (617)918-1837 (snyder.gina@epa.gov) or Jack Healey at (617)918-1844 (healey.jack@epa.gov).

COMMENT NO 5: The new maintenance and monitoring requirements of the draft permit will definitely require time and effort on the part of the City to comply with and will result in increased rates for our system users. For the most part, the City believes that it can cost-effectively implement the majority of the monitoring and maintenance requirements. However, with respect to Part I.D.4 regarding mapping, we anticipate that significant time and expense will be necessary to find, pull together, collate and merge these data into a workable Sewer System map. While we agree that such a map would be a nice thing to have, we do not agree that the benefit will be worth the time and expense that will have to be dedicated to achieve it. Accordingly, the City respectfully requests that this requirement be waived.

RESPONSE NO. 5: As mentioned in the fact sheet Section IV. Operation and Maintenance, the BPCF is a Publicly Owned Treatment Works (POTW) as defined at 40 C.F.R. § 403.3. This definition also includes sewers, pipes, and other conveyances that convey wastewater to a POTW treatment plant. Conditions applicable to all permits include the regulation regarding proper operation and maintenance (see 40 C.F.R. § 122.41(e)). This regulation requires "that the permittee shall at all times operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of the permit." The treatment plant and collection system are included in the definition "facilities and systems of treatment and control" and are therefore subject to proper operation and maintenance requirements. The General requirements for proper operation and maintenance, and mitigation are typically found in Part II, Standard Conditions. Recently, EPA has included the specific permit conditions found in Parts I.C, I.D, and I.E in all reissued municipal permits.

EPA recognizes that staff time and expense is required to prepare the sewer collection system map. The draft permit provides the City with a 30 month time frame to prepare this collection system map in a cost effective manner. As a starting point, the City should build upon the collection system mapping details provided to EPA on July 17, 2007 in response to EPA's earlier request for information, under Section 308 of the Clean Water Act, dated April 11, 2007. EPA believes the City is under estimating the importance and value of a consolidated Sewer System map. This map will be a convenient planning tool and reference document to all current and future staff and this map will be easily updated. The required sewer system details will assist the City to maintain the sewer collection system and to connect new users associated with the new developments mentioned in Comment No. 1. This Sewer System map will provide a master reference document for all City staff.

EPA REVIEW: During the preparation of the permit for final issuance, EPA combined the two redundant sections with requirements for unauthorized discharges. Part I.C. has been revised to include the requirements in Part I. B.3 that has been eliminated.

September 9, 2008